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Silicommon: A Library Complex and Center for Technology Start-Ups in Palo Alto, CA

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Capstone Summary

The Silicommon Project explores the relationship of architecture to the creation and exchange of knowledge in the context of technological development. It recognizes that information technologies like the internet have changed our relationship with knowledge, making it ever more accessible, but also reducing our ability to regulate its dissemination. The Silicommon is an architectural environment that facilitates productive exchanges of knowledge that advance the state-of-the art; advocates participation by the public in the process of technological change; and seeks to create instruments that give holders of valuable knowledge the means to structure their relationships with those who threaten to exploit their knowledge in extractive ways.

The Silicommon project focused on creating architecture that would house start-up companies, which are relatively small companies (sometimes consisting of just two or three individuals) that are generally formed around a single innovative technology or business model created by the company's founders. Startups use this proprietary knowledge as a way to acquire capital and collaborators. Start-ups are one of the most crucial sources of innovation, as they challenge existing practices and technical standards, pushing the boundaries of the possible to envision the future of technology. As such, they are generators of new knowledge. However, as startups are frequently formed by individuals who may not necessarily be experienced in the the various fields of operation that a startup must contend with, they are also by necessity avid consumers of knowledge which they may not have the time, money, or expertise to develop. In many cases, this knowledge is acquired through exchange with members other startups,

consultants, corporate or venture capital partners.

Because most of their value rests in the proprietary knowledge that their work has created, startups are fiercely protective of this new knowledge in order to keep it from competitors. On the other hand, they are frequently reliant on financing, production, and partnership arrangements that require them to disclose at least a portion of this knowledge in exchange for monetary or other support critical to their business success. They face an uneasiness in their knowledge relationships that forces them to walk a fine line between concealment and disclosure. This unease is related to a larger cultural phenomenon engendered by the growth of new media. While the internet, social media, cell phones, and other recently developed telecommunications phenomena have enlarged the scope of our ability to interact with and find out information about those with whom we associate, they have also created a feeling of ambivalence with regard to this connectivity. We as individuals in a network society belong, increasingly without choice, to a community that produces and distributes information in ways we may or may not be able to control.

The title of this capstone project "Silicommon", derives from its acting as a proposal for a *Sili*con Valley Knowledge *Common*. The Silicommon is designed as two architectures in one. On one hand, it offers a set of four separately accessible public libraries that hold collections related to four major areas of competence important to startup ventures. These are Finance and Business, Media, Technology, and Law. The successful technology startup must tactfully and skillfully negotiate all four of these areas of knowledge in order to create innovative products that are technical sound, legally protected, financially viable, and marketed in a compelling way. The goal of these libraries is to

facilitate the acquisition of knowledge in these four areas by members of the general public who are interested in forming start-up ventures.

Start-up companies however, also require additional tool to successfully build their businesses while avoiding potential pitfalls. It is these resources that are provided by the embedded architectural system that is contained within and weaves together the four libraries into a single knowledge complex.

The relationship between these two architectural layers is designed to express the tension between openness and privacy that is reflected in startups. While the startup facilities are largely hidden from public view, the public is given intriguing but limited glimpses into this concealed world, potentially allowing for knowledge to be leaked into the public sphere, or for members of the public to be drawn in by the lure of working on the frontier of knowledge creation.

The Silicommon is sited in Palo Alto, CA, which has historically been home to numerous well-known technology start-ups. This is due in no small part to the presence of Stanford University and the Stanford Research Park, founded by former Stanford president Frederick Terman to lease land to companies working in the tech sector. Not least among these Palo Alto-based startups is Hewlett-Packard, which was founded in a garage on Addison Ave that has since been dubbed "the birthplace of Silicon Valley". Silicon Valley, a "technopole" that has been rapidly expanding ever since an initial wave of high-tech research and investment in the 1950's catapulted the region to national and then international prominence as a hub of innovation, has come to be synonymous with cutting edge research and development in technology.

The myth of the "garage entrepreneur" which has been associated with the success of corporations like Apple, Google, and Hewlett Packard, describes the heroic upstart inventor slaving away in his or her garage to produce a revolutionary idea that catapults them from obscurity to fame and fortune. While not generally an accurate depiction of the process that most startup companies undergo, this myth maintains a hold on the American imagination by appealing to a somewhat revised version of what is typically considered to be the American dream. No longer about achieving a standard of material comfort through industriousness, the new American dream promises huge rewards to those who by hard work and ingenuity develop revolutionary concepts that reshape our society.

While startups are not necessarily to be found in garages, they do almost always begin by occupying inexpensive, provisional spaces that are close at hand, such as a basement, empty bedroom, shed, etc. This means that in many cases, early-stage startups are not to be found in office parks, but inconspicuously embedded in residential areas. This led to the idea of placing the Silicommon unobtrusively in a similar residential context.

Sandwiched between Stanford University and the Stanford Research Park is a 2-by-12 block strip of residences known as College Terrace. Originally occupied by the workers who built the Stanford University campus, the neighborhood has remained relatively unchanged despite the growth of its two much larger scale neighbors. Embedded within the residential blocks of College Terrace are four approximately 1-acre parks, one of which is home to an existing public library. The Silicommon occupies another, acting as a conceptual reflection of this library. By contrast to the traditional understanding of a library as simply a

site of information access, the Silicommon proposes the expansion of the notion of

the public library into the realm of knowledge production and exchange.

The Silicommon complex is camouflaged beneath a kind of "Potemkin

Village", or ersatz residental development of 8 houses arranged within the

footprint of the existing park. These houses are paired, with one of each pair of

houses providing the entry point to one of the subterranean libraries. The second

of the pair appears inaccessible from the outside, and represents the reemergence

of the startup facilities into the public ream. A service block holds the

building's loading dock.

The camouflage buildings mimic characteristics of the surrounding

residential fabric in terms of size, shape, and materiality. The source of

inspiration for this move was WWII-era camouflaging of the Lockheed aircraft plant

in Burbank, California, which was disguised through the application of vegetation-

simulating canopies and false houses meant to make the enormous aircraft plant

appear from the air to be just another in a series of suburban residential

developments. In the case of the Silicommon, the strategy is similarly defensive,

but is conceived as a way to avoid corporate predation by established firms rather

than actual military attack.

As befits an architectural project, the Silicommon was developed through

diagramming, drawing, and both physical and digital modeling. A number of

iterations developed initial conceptual strategies into a material proposal that

negotiates intellectual, contextual, functional, and material demands.

The Silicommon Project drew on the aforementioned ideas to create a

building that responds to the needs of startup companies, while at the same time

encouraging a shift from an individualistic pursuit of knowledge ownership to the

idea of knowledge as a commons that is cultivated by a collective of agents who

recognize both individual and shared claims to knowledge resources.